

# Overview of C-12281

## Investigation of Long-term Stability and Phosphorus Accretion

**Ecological Technologies Department  
Everglades Construction Project**

3/15/01

# BACKGROUND

- ◆ Research on Advanced Treatment Technologies (ATTs) is mandated by the Everglades Forever Act.
- ◆ Submerged Aquatic Vegetation /Limerock Treatment System (SAV/LR) is one of the ATTs being evaluated by the District and FDEP.
- ◆ Current research is conducted using several platforms ranging from mesocosms to full-scale constructed wetlands.

3/15/01

# OBJECTIVES

- ◆ Obtain information on long-term SAV stability from natural systems.
- ◆ Estimate long-term P accretion rate from natural systems dominated by SAV.
- ◆ Provide additional data for the evaluation of the SAV/LR treatment technology.

# RATIONALE: Why do we study the sediment?

- ◆ Long-term water quality data are typically unavailable from surface water.
- ◆ Sediment provides a record of the history of the aquatic systems.

# PROJECT LOCATION

- ◆ **Lake Panasoffkee is located in Sumter County, Florida.**
- ◆ **The lake has a history of SAV dominance.**
- ◆ **The lake exhibits major physical and chemical properties similar to those of the Water Conservation Areas and the STA-1W.**

# WORK BREAKDOWN

- ◆ Field sampling
- ◆ Laboratory analysis
- ◆ Data analysis

# QUALIFICATIONS

- ◆ Familiar with Florida environmental concerns
- ◆ Limnology and Paleolimnology
- ◆ Aquatic plant ecology
- ◆ Aquatic chemistry
- ◆ Nutrient analysis
- ◆ Natural abundance of stable and radio isotopes
- ◆ Sediment sampling techniques
- ◆ Plant fragment and pollen analysis

# PROJECT MILESTONE

Work Plan

Field sampling

Lab Analysis

Final Report

04/2001

6/2001

12/2001

3/2002